

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

DATE:

SUBJECT: AES Puerto Rico Total Energy Plant – Review of the March 3, 2003 Stack Test Report

FROM: Donald G. Wright, Environmental Scientist
Air and Water Quality Assurance Team (2DESA-MAB)

TO: John P. Aponte, Environmental Engineer
Enforcement and Superfund Branch (2CEPD-EMB)

I have reviewed the March 3, 2003 stack test report for the re-testing at the AES Puerto Rico Total Energy Plant in Guayama, Puerto Rico. This test, which was conducted on January 22 through 24, 2003 by Trigon Engineering Consultants, Inc, included measurement of sulfuric acid mist at Unit 1, particulate matter at Unit 2, and PM_{10} at the limestone dryer. The results are summarized in the attached table from the report. The particulate and PM_{10} testing at Unit 2 and the limestone dryer respectively showed non-compliance with the PSD permit. The sulfuric acid results should not be considered a violation of the PSD limits due to positive bias in the method when ammonia is present, as is the case with Unit 1.

This report also included the results for the CO_2 monitor relative accuracy (RA) test. This monitor successfully met the RA criterion. However, Trigon did not use equation 2-6 in PS 2 to calculate the RA. The RA was reported at 0.22% when the actual value should have been 2.8%.

I have entered the results of this stack test into the AIRS data base. If you have any questions or wish to discuss this matter, please feel free to call me at (732) 321-6764.

cc: Francisco Claudio, 2CEPD-ESB via email
Harish Patel, 2DECA-ACB via email
Steve Riva, 2DEPP-APB via email

Attachment

Summary of Emission Compliance Re-Test Results					
Source	Pollutant	Permit Limit	Concentration ppm@7%O ₂	Emission Rate lb/hr	Emission Rate lb/mmBtu
Unit 1	Sulfuric Acid Mist	5.9 lb/hr, 0.0024 lb/mmBtu or 0.64 ppm@7%O ₂	0.81	7.25	0.0030
Unit 2	Particulate Matter	36.9 lb/hr or 0.015 lb/mmBtu		95.3	0.040
Limestone Dryer	PM ₁₀	1.24 lb/hr or 0.095 lb/mmBtu		1.32	0.111

¹ Sulfuric acid mist corrected to 7 percent O₂ assumed a molecular weight of 98.08 (sulfuric acid).
lb/hr – pounds per hour, lb/mmBtu – pounds per million Btu.